

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Charles C. Hays
Serial No. : Not yet known
Filed : July 14, 2003
Title : FRACTIONAL VARIATION TO IMPROVE BULK METALLIC GLASS
FORMING CAPABILITY

Art Unit : Unknown
Examiner : Unknown

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Copies of the references listed on the attached form PTO-1449 can be found in parent application serial number 09/681,594.

This statement is being filed with the application. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,



Joseph R. Baker, Jr.
Reg. No. 40,900

Date: _____

7/14/03

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Substitute Form PTO-1449 (Modified) Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 06618-629002	Application No. Not yet known
	Applicant Charles C. Hays		
	Filing Date July 14, 2003	Group Art Unit Not yet known	

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	5,380,375	01-1995	Hashimoto et al.			
	AB	5,735,975	04-1998	Lin et al.			
	AC	5,797,443	Aug. 25, 1998	Lin et al.			
	AD	5,737,975	Apr 7, 1998	Lin et al.			
	AE	5,482,577	Jan 9, 1996	Hashimoto et al.			
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AL							
	AM							
	AN							
	AO							
	AP							

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	AQ	Eckert, J. et al. "Mechanically alloyed $Zr_{55}Al_{10}Cu_{30}Ni_5$ metallic glass composites containing nanocrystalline W particles." <i>Journal of Applied Physics</i> (1999): 7112-1779.
	AR	Xing, L.Q. et al. "High-strength materials produced by precipitation of icosahedral quasicrystals in bulk Zr-Ti-Cu-Ni-Al amorphous alloys." <i>Applied Physics Letters</i> (1999): 664-666.
	AS	Xing, L.Q. et al. "Deformation mechanism of amorphous and partially crystallized alloys." <i>NanoStructured Materials</i> (1999): 503-506.
	AT	Eckert, J. "Mechanical alloying of bulk metallic glass forming systems." <i>Materials Science Forum</i> (1999): 3-12.

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	AU	Schurack, F. et al. "Synthesis and properties of mechanically alloyed and ball milled high strength amorphous or quasicrystalline Al-alloys." <i>Materials Science Forum</i> (1999): 49-54.
	AV	Kubler, A. et al. "Nanoparticles in an amorphous $Zr_{55}Al_{10}Cu_{30}Ni_5$ -matrix-the formation of composites by mechanical alloying." <i>Nanostructured Materials</i> (1999): 443-446.
	AW	Eckert, J. et al. "Nanophase composites in easy glass forming systems." <i>NanoStructured Materials</i> (1999): 439-442.
	AX	Schlorke, N. et al. "Properties of Mg-Y-Cu glasses with nanocrystalline particles." <i>NanoStructured Materials</i> (1999): 127-130.
	AY	Eckert, J. et al. "Mechanically alloyed Mg-based metallic glasses and metallic glass composites containing nanocrystalline particles." <i>Z. Metallkd</i> 90 (1999): 908-913.
	AZ	Shingu, P.H. "Metastability of amorphous phases and its application to the consolidation of rapidly quenched powders." <i>Materials Science and Engineering</i> (1988): 137-141.

Examiner Signature	Date Considered
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